ABSTRACT

Aims: To compare the effectiveness of braille based and model based oral health education programme in improving the oral health among 10-17 year old visually impaired school children in Chennai city.

Objective: 1. To assess the baseline oral health status of the study population using the Plaque Index by Silness J and Loe H (1964) and Gingival Index by Loe H and Silness J (1963) **2.** To assess the changes in oral health status in the intervention group at the third month after oral health education through braille script and tooth models.3. To evaluate and compare the oral health status of the study population pre and post intervention.4.To evaluated and compare oral health knowledge of the study population using WHO Oral Health Questionnaire for Children 2013 pre and post intervention with braille script and tooth models.

Methodology: An interventional study consisting of 112 visually impaired students who met the eligibility criteria and who were willing to participate in the study were selected. Oral health status was assessed using Plaque Index (PI) and Gingival Index (GI). Their oral health Knowledge was also assessed using WHO Oral Health questionnaire for Children 2013 . The participants were allocated into braille based and model based group using coin toss method, 56 in each group. Intervention was given one group of children using braille script and to the other group of children using tooth model (Audio Tactile Performance) technique after assessment of baseline oral health examination. Follow up examinations was

carried out for both the groups at the third month using Plaque Index (PI) and Gingival Index (GI) and their oral health Knowledge was assessed using WHO Oral Health Questionnaire for Children

Results: The mean PI score in the braille based group reduced from baseline (1.72) to third month (1.11) and in the model based group from baseline (1.71) to third month (1.12) which was statistically significant ($p<0.001$). The mean GI score in the braille based group reduced from baseline (0.85) to third month (0.64) and in the model based group from baseline (0.85) to third month (0.57) which was also statistically significant ($p<0.001$). There was an increase in the number of children who brushed their teeth twice daily from baseline to third month in both braille based and model based groups.Also there was an increase in the number of children who perceived their oral health to be good at the 3rd month in both braille based and model based group.

Conclusion: The intervention given through the braille script and tooth models improved the oral health status and oral health knowledge among the visually impaired schol children.